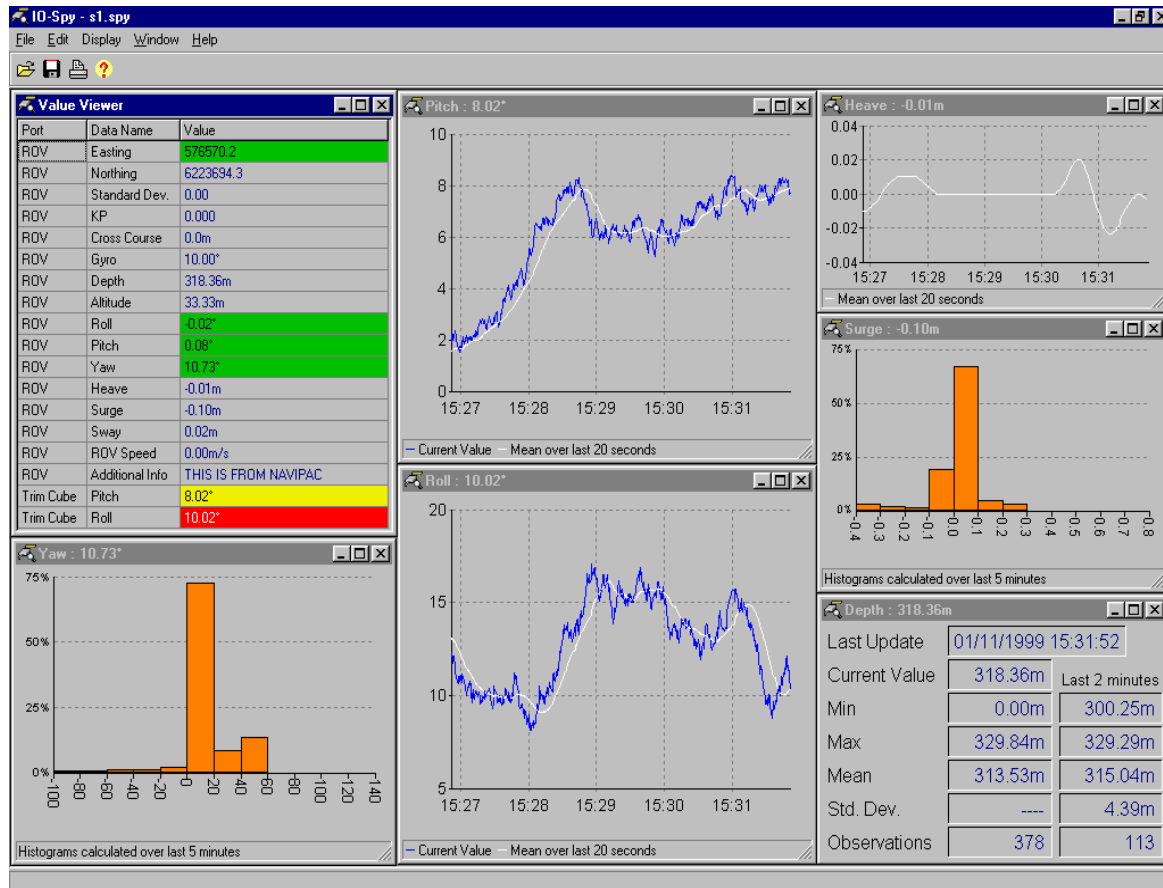


IOspy - Data Logger

PC Windows software for real-time data acquisition, logging & display.



Powerful features in IOspy enable:

- ✓ User-defined templates to read any kind of input telegram
- ✓ Corrections to be applied to raw data
- ✓ Data validation and quality checking
- ✓ Derive variables based on input data
- ✓ Time-tagging and logging to disk in simple text files
- ✓ Direct streaming of data to a printer
- ✓ Statistics computed as data is acquired
- ✓ Setting of target and threshold values
- ✓ Dynamic graph and numeric displays

While straightforward and simple to use, IOspy is extremely flexible and configurable to a wide range of applications.

Able to accept digital data from the PC communications port, IOspy may be used directly to acquire data from many instruments and sensors with no other hardware or software being required. IOspy is also DDE compatible so it can supply or be fed by other software components.

Accurate and reliable in operation, IOspy is a proven performer in the offshore environment with extensive use on projects such as surveys, inspections, sub-sea installations, drilling and marine operations.

Four Communications modes:

- **Serial Interface**
- **RS-485 Network**
- **DDE server**
- **Simulator**

Up to six simultaneous channels:

- **i.e. 6 serial comms ports**
- **or network nodes**
- **or DDE conversations**
- **or simulated input channels**

Corrections - applied to raw data:

- **Data correction offsets can be individually defined for all data fields.**
- **Different corrections can be applied in up to three defined value bands.**

Display - of acquired and processed data:

Dynamically updating display window that can be user configured.

Up to eight data items (corrected values) always visible in a numeric data panel.

Five other panels for detailed data displays which can be switched between:

- **Statistics** - Numeric display of the computed statistical parameters.
- **Line Graph** - Plot of data on a time axis (select from 2 minutes to 8 hours).
- **Histogram** - Distribution of data values across several value bands.
- **Large Numeric** - Big font display of Corrected data value or its running mean.
- **Gauge Mimic** - Graphic gauge (appropriate to some data types only)

Logging - to disk file:

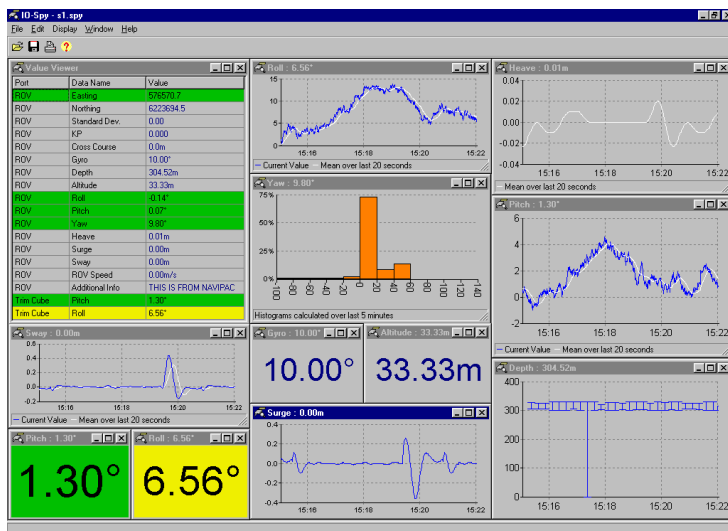
- ↗ Tab separated ASCII text format - can be read by Excel.
- ↗ User defined interval by time step or at Nth data update.
- ↗ Elect to log either Raw or Corrected data.
- ↗ Control log file location, naming and size.
- ↗ Start and stop logging while on-line.

Statistics - computed using Corrected Data:

- ↗ Rolling statistics of Min, Max, Mean and Standard Deviation - on all values since a "Reset" and also for the last N values where N can be set.
- ↗ Facility to capture a specific sample size (number of acquired data strings) with manual control over Start and Stop.

Data Acquisition - by standard digital communications:

- ↗ Each active input channel can be assigned a message string (telegram) which can contain up to 100 data values.
- ↗ Message string format is pre-defined by a separate utility program - the IOSPY Template Editor.
- ↗ A library of message formats is maintained for common devices including many which use the NMEA 0183 standard message syntax.
- ↗ IOSPY comes with one or more message formats suitable for the instrument or device it is supplied with.
- ↗ Once configured and running, IOSPY acquires data from each active input channel and the incoming data strings can be viewed as they arrive.
- ↗ In Serial communications mode, the acquisition rate can be set to read the message strings of active channels at a frequency of 1, 2, 3, or 4 Hertz instead of every time the data is sent by the device (providing the device sends at a faster rate than the selected acquisition frequency).



Printing - to any attached printer:

- **Selection of either Raw Data or Corrected Data.**
- **Define interval by time step or Nth data update.**
- **Start and stop print stream while on-line.**

Targets & Tolerances - to assist in monitoring:

- **Can be set up for every data item (relate to the Corrected data values).**
- **Data displays indicate whether values are in or out of tolerance from target by colour change (red/green) and/or other means appropriate to the display type.**

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